008270 "E5272960

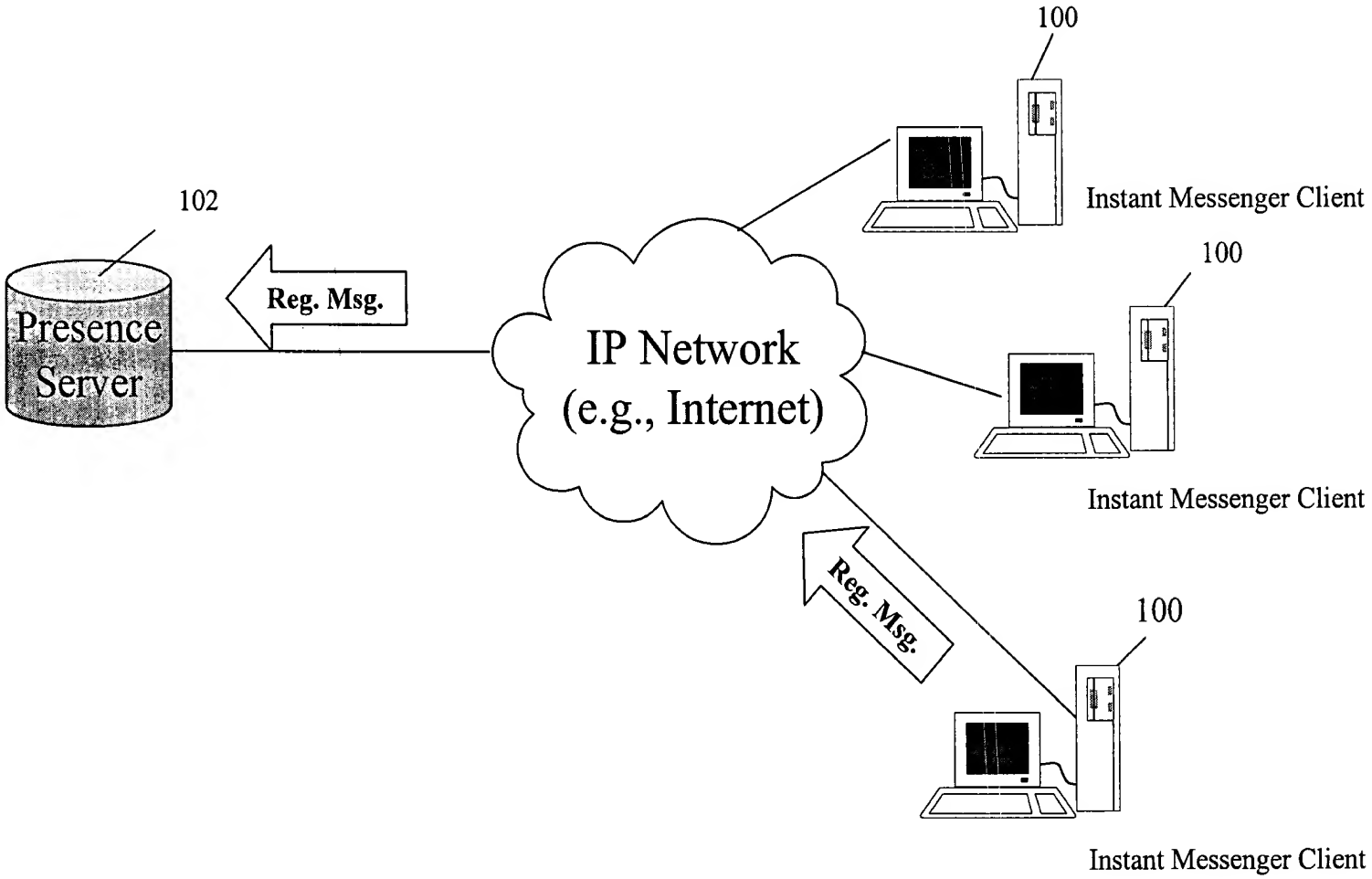

Figure 1
(PRIOR ART)

00820 '5247960

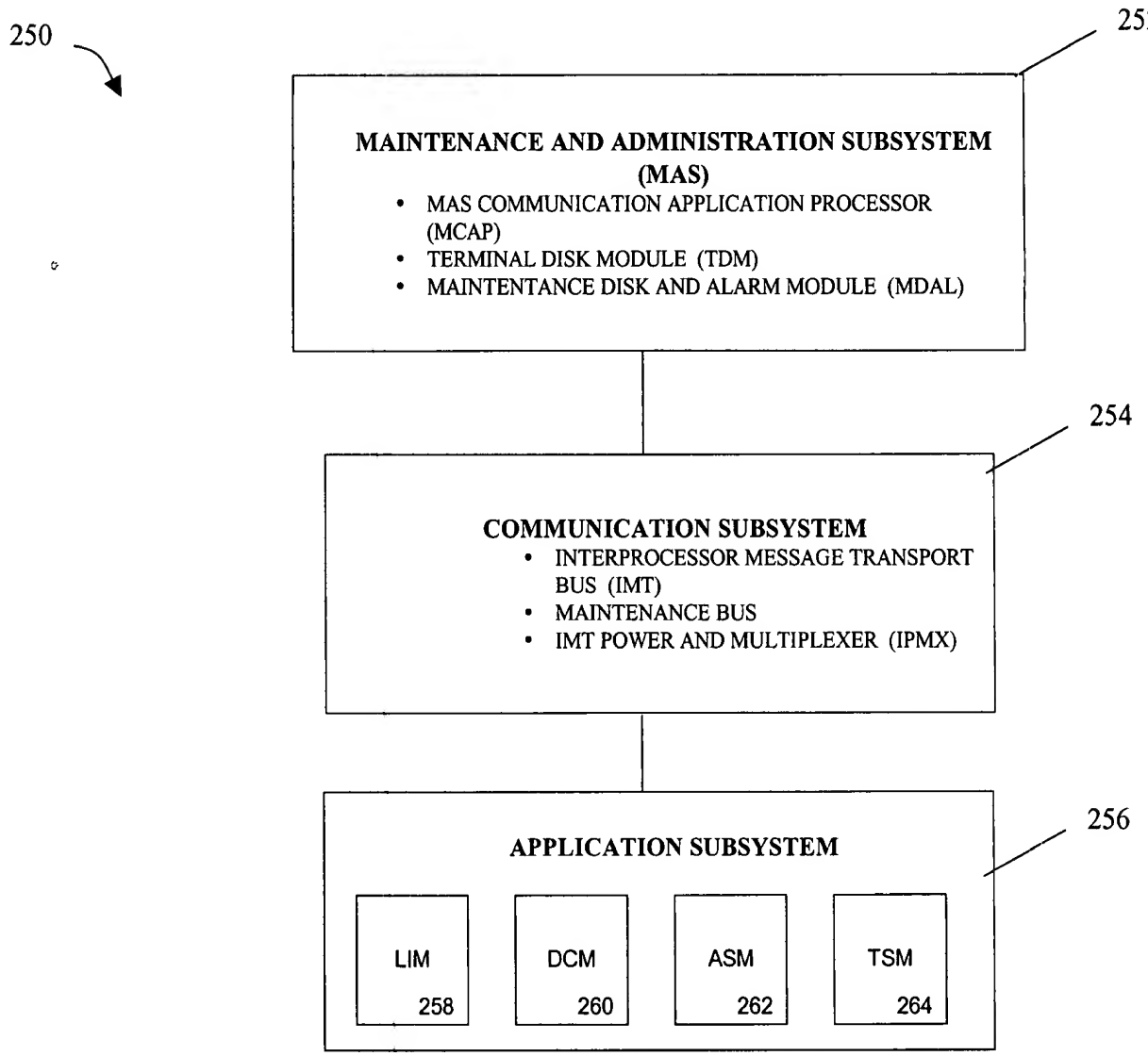

Figure 2

008220 "ES2423960

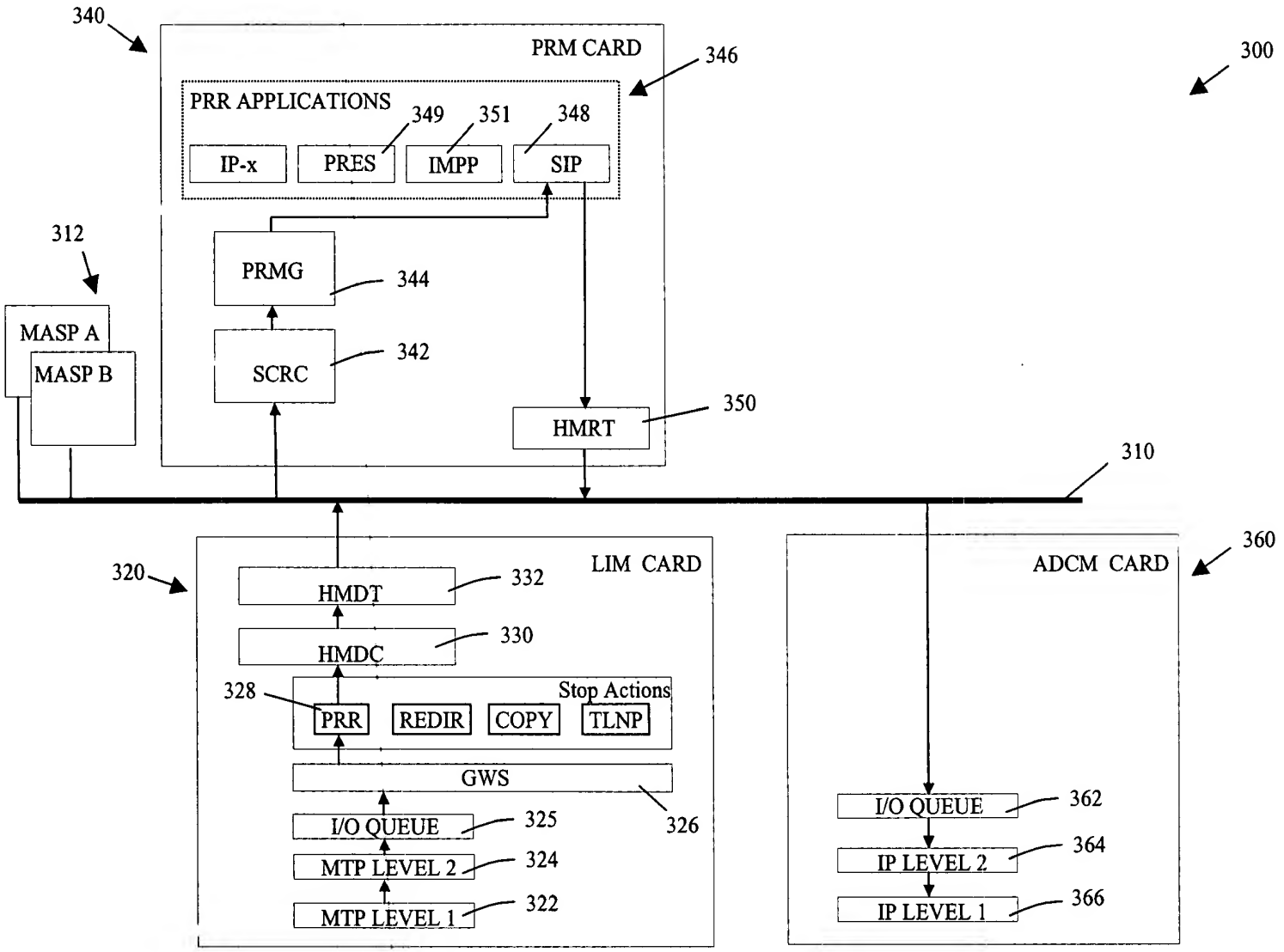

Figure 3

008270 .0728096

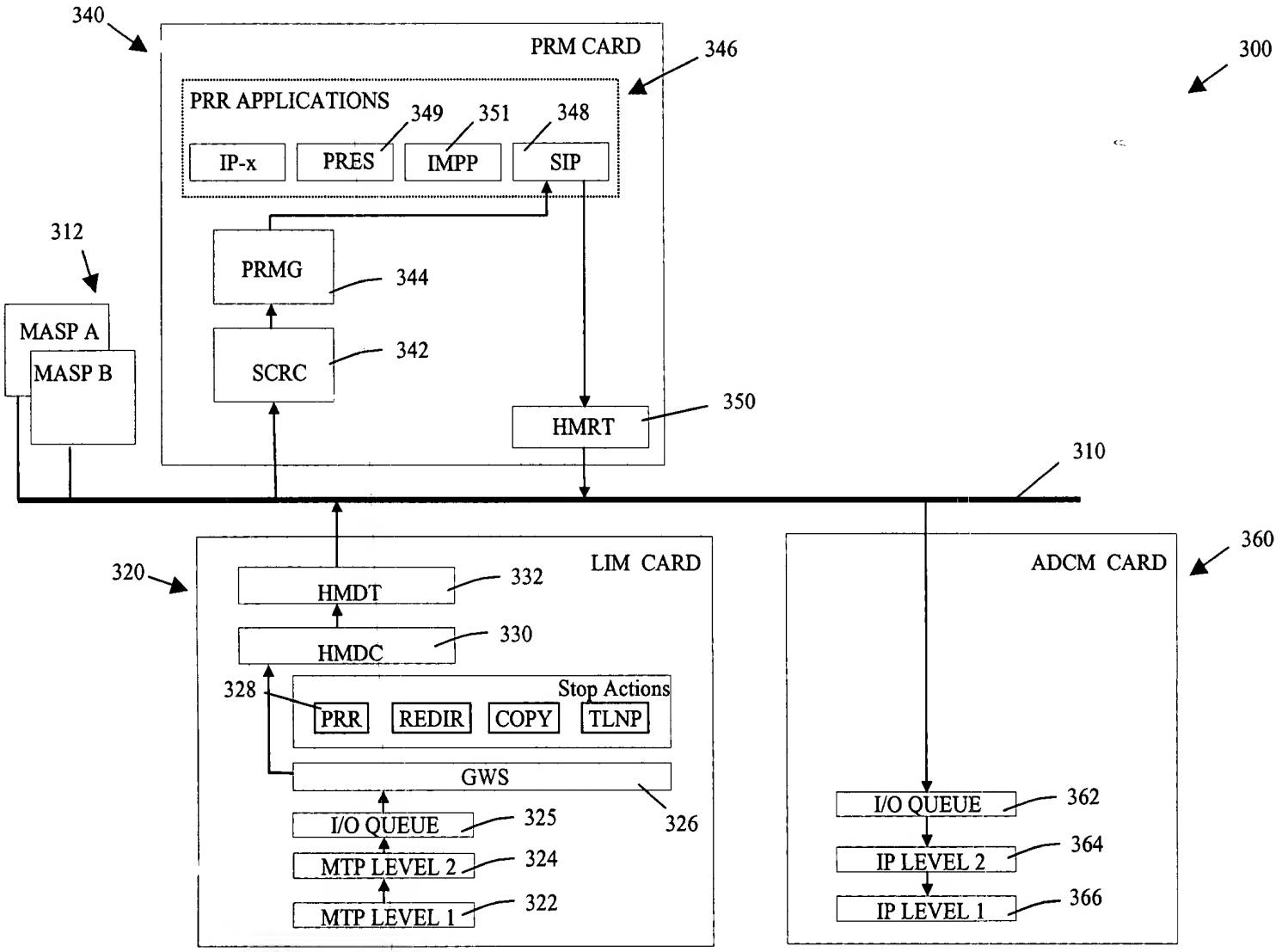

Figure 4

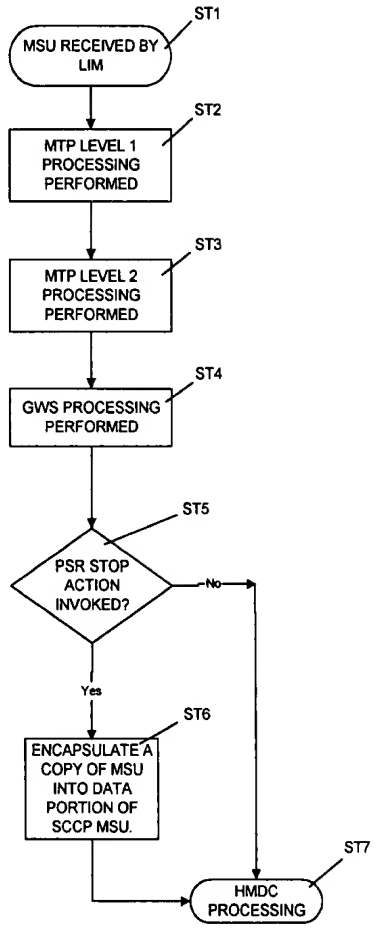
ST1
MSU RECEIVED BY LIM
ST2
MTP LEVEL 1 PROCESSING PERFORMED
ST3
MTP LEVEL 2 PROCESSING PERFORMED
ST4
GWS PROCESSING PERFORMED
ST5
PSR STOP ACTION INVOKED?
No
Yes
ST6
ENCAPSULATE A COPY OF MSU INTO DATA PORTION OF SCCP MSU.
ST7
HMDC PROCESSING

Figure 5a

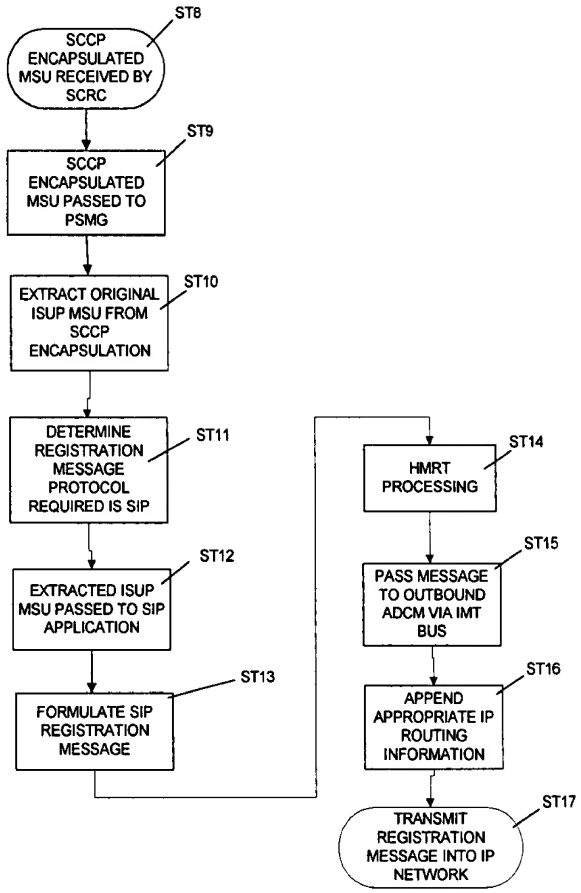
ST8
SCCP ENCAPSULATED MSU RECEIVED BY SCRC
ST9
SCCP ENCAPSULATED MSU PASSED TO PSMG
ST10
EXTRACT ORIGINAL ISUP MSU FROM SCCP ENCAPSULATION
ST11
DETERMINE REGISTRATION MESSAGE PROTOCOL REQUIRED IS SIP
ST12
EXTRACTED ISUP MSU PASSED TO SIP APPLICATION
ST13
FORMULATE SIP REGISTRATION MESSAGE
ST14
HMRT PROCESSING
ST15
PASS MESSAGE TO OUTBOUND ADCM VIA IMT BUS
ST16
APPEND APPROPRIATE IP ROUTING INFORMATION
ST17
TRANSMIT REGISTRATION MESSAGE INTO IP NETWORK

Figure 5b

008270 "EP2423960

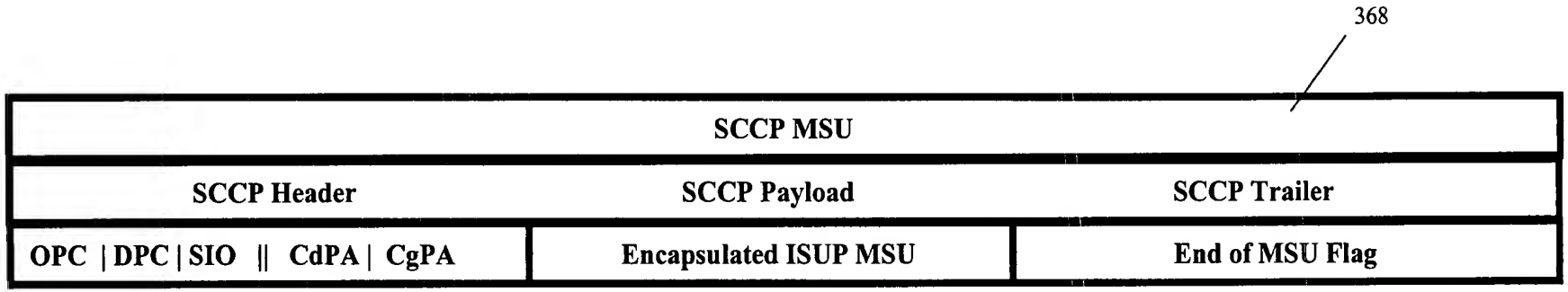

Figure 6

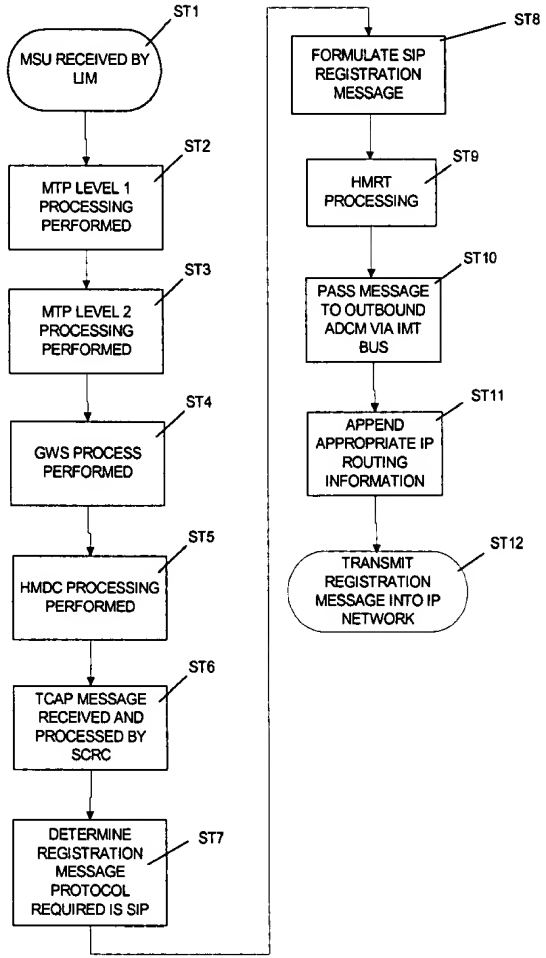
ST1
MSU RECEIVED BY LIM
ST2
MTP LEVEL 1 PROCESSING PERFORMED
ST3
MTP LEVEL 2 PROCESSING PERFORMED
ST4
GWS PROCESS PERFORMED
ST5
HMDC PROCESSING PERFORMED
ST6
TCAP MESSAGE RECEIVED AND PROCESSED BY SCRC
ST7
DETERMINE REGISTRATION MESSAGE PROTOCOL REQUIRED IS SIP
ST8
FORMULATE SIP REGISTRATION MESSAGE
ST9
HMRT PROCESSING
ST10
PASS MESSAGE TO OUTBOUND ADCM VIA IMT BUS
ST11
APPEND APPROPRIATE IP ROUTING INFORMATION
ST12
TRANSMIT REGISTRATION MESSAGE INTO IP NETWORK

Figure 7

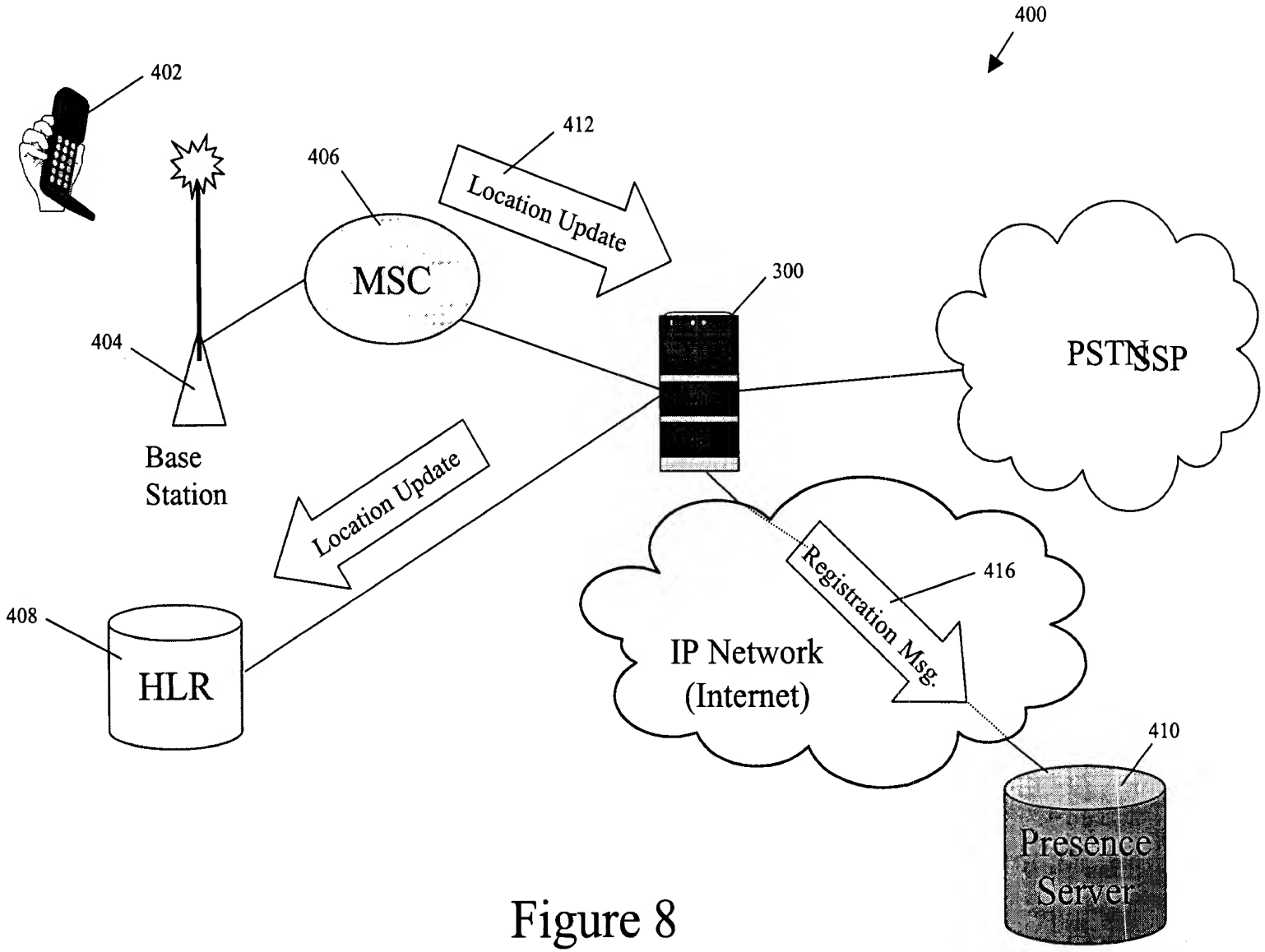
400
402
412
406
Location Update
MSC
300
PSTN/SSP
404
Base
Station
Location Update
Registration Msg.
416
408
HLR
IP Network
(Internet)
410
Presence
Server

Figure 8

09627253 .02800

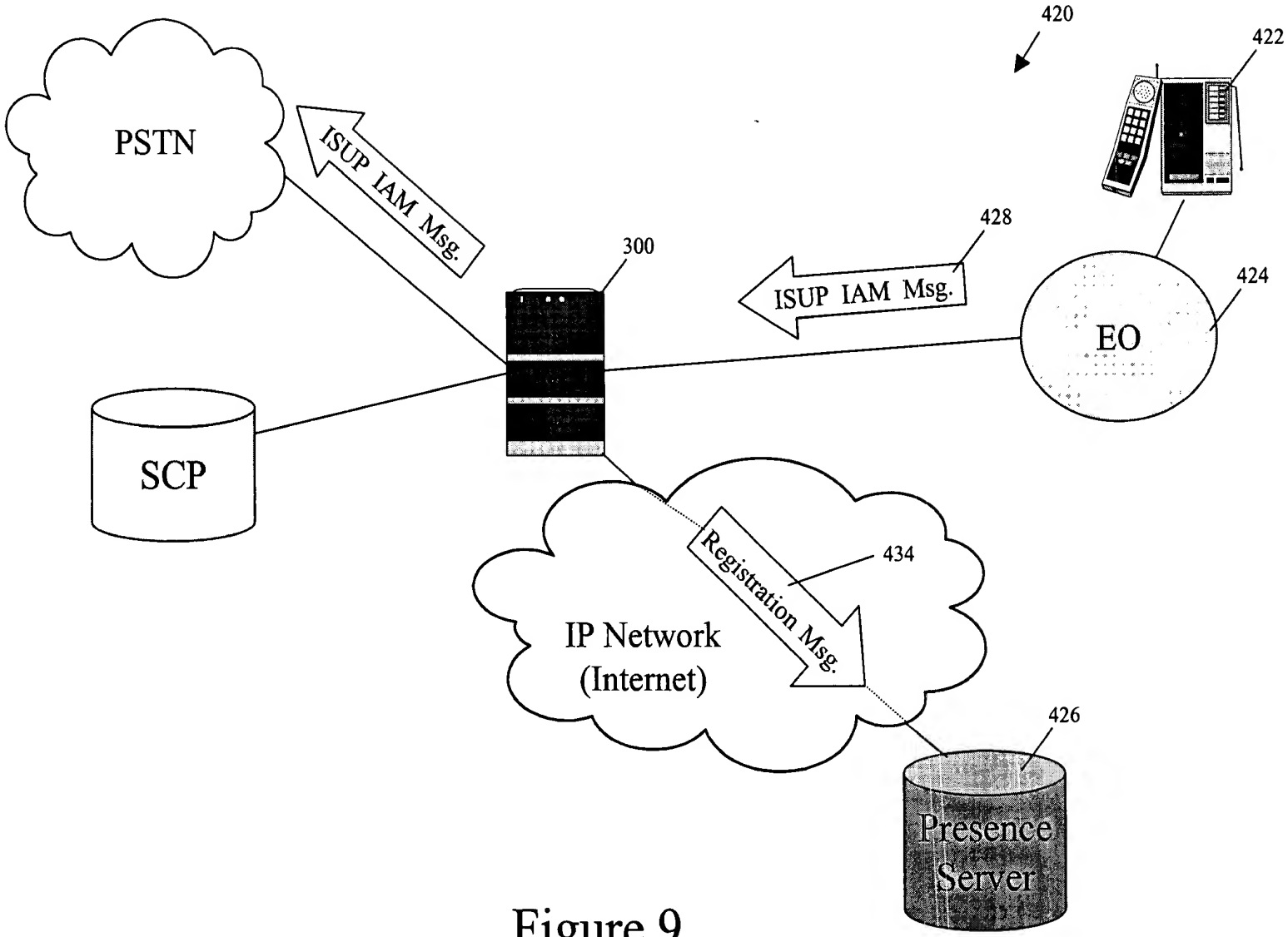

Figure 9

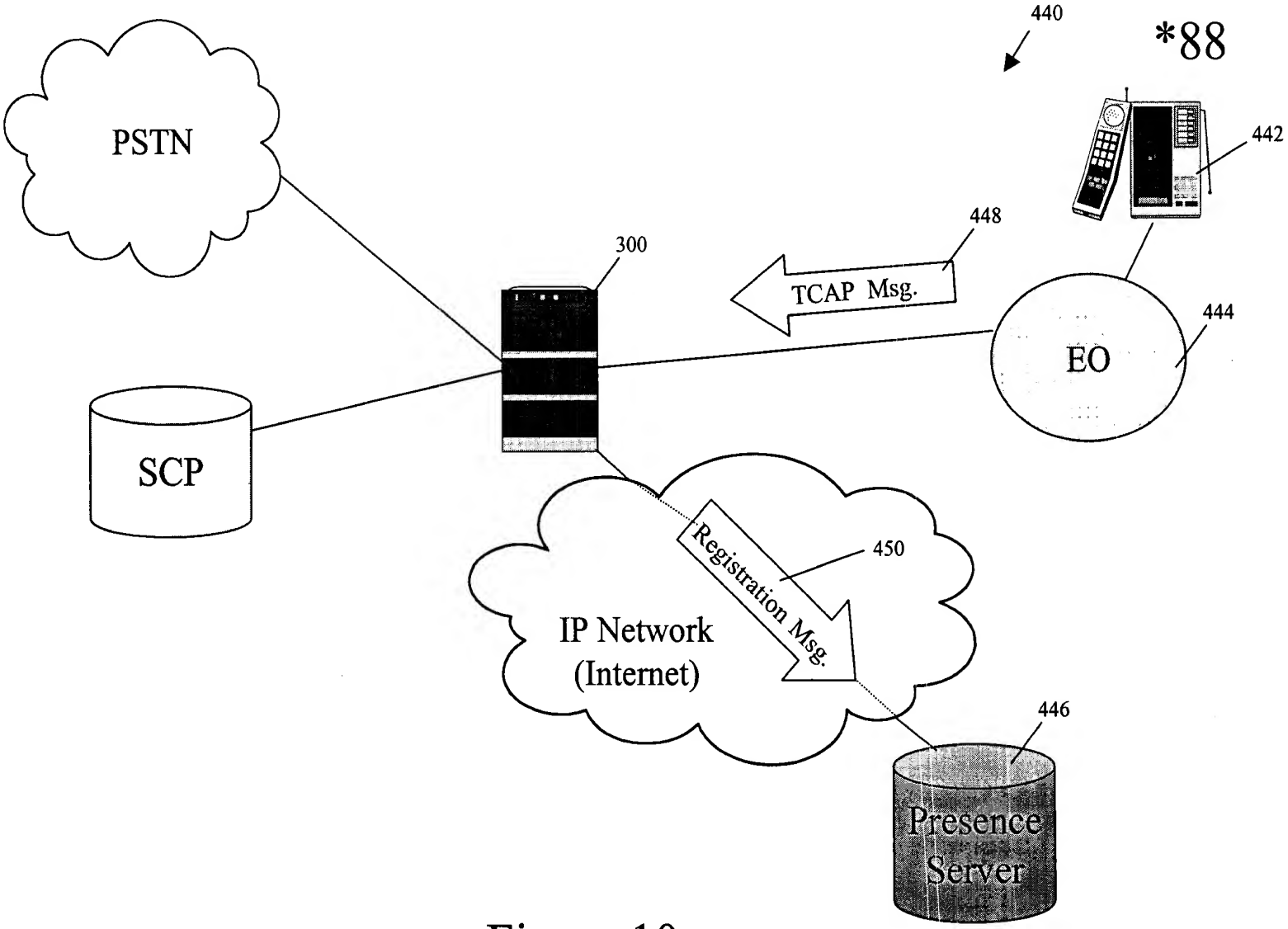
440
*88
PSTN
442
448
300
TCAP Msg.
444
EO
SCP
450
Registration Msg.
IP Network
(Internet)
446
Presence
Server

Figure 10

008220 "ES242960

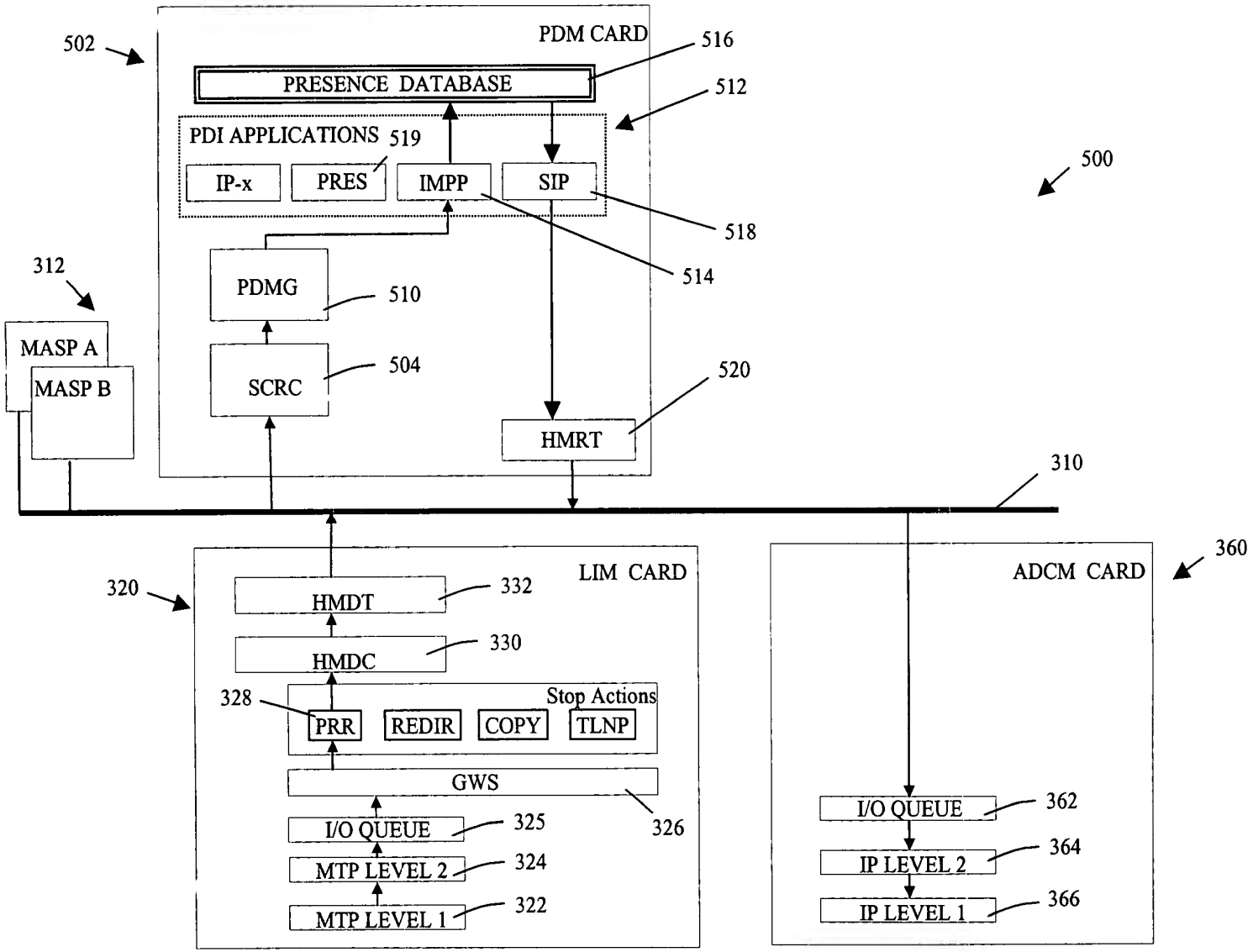

Figure 11

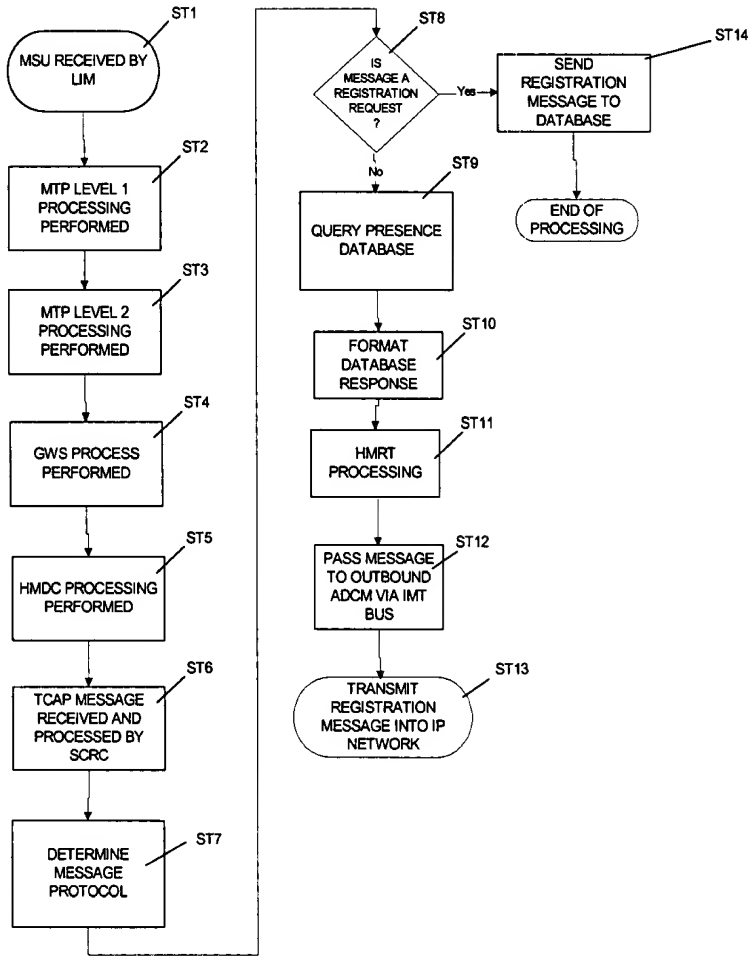
ST1
MSU RECEIVED BY LIM
ST2
MTP LEVEL 1 PROCESSING PERFORMED
ST3
MTP LEVEL 2 PROCESSING PERFORMED
ST4
GWS PROCESS PERFORMED
ST5
HMDC PROCESSING PERFORMED
ST6
TCAP MESSAGE RECEIVED AND PROCESSED BY SCRC
ST7
DETERMINE MESSAGE PROTOCOL
ST8
IS MESSAGE A REGISTRATION REQUEST ?
Yes
No
ST14
SEND REGISTRATION MESSAGE TO DATABASE
END OF PROCESSING
ST9
QUERY PRESENCE DATABASE
ST10
FORMAT DATABASE RESPONSE
ST11
HMRT PROCESSING
ST12
PASS MESSAGE TO OUTBOUND ADCM VIA IMT BUS
ST13
TRANSMIT REGISTRATION MESSAGE INTO IP NETWORK

Figure 12

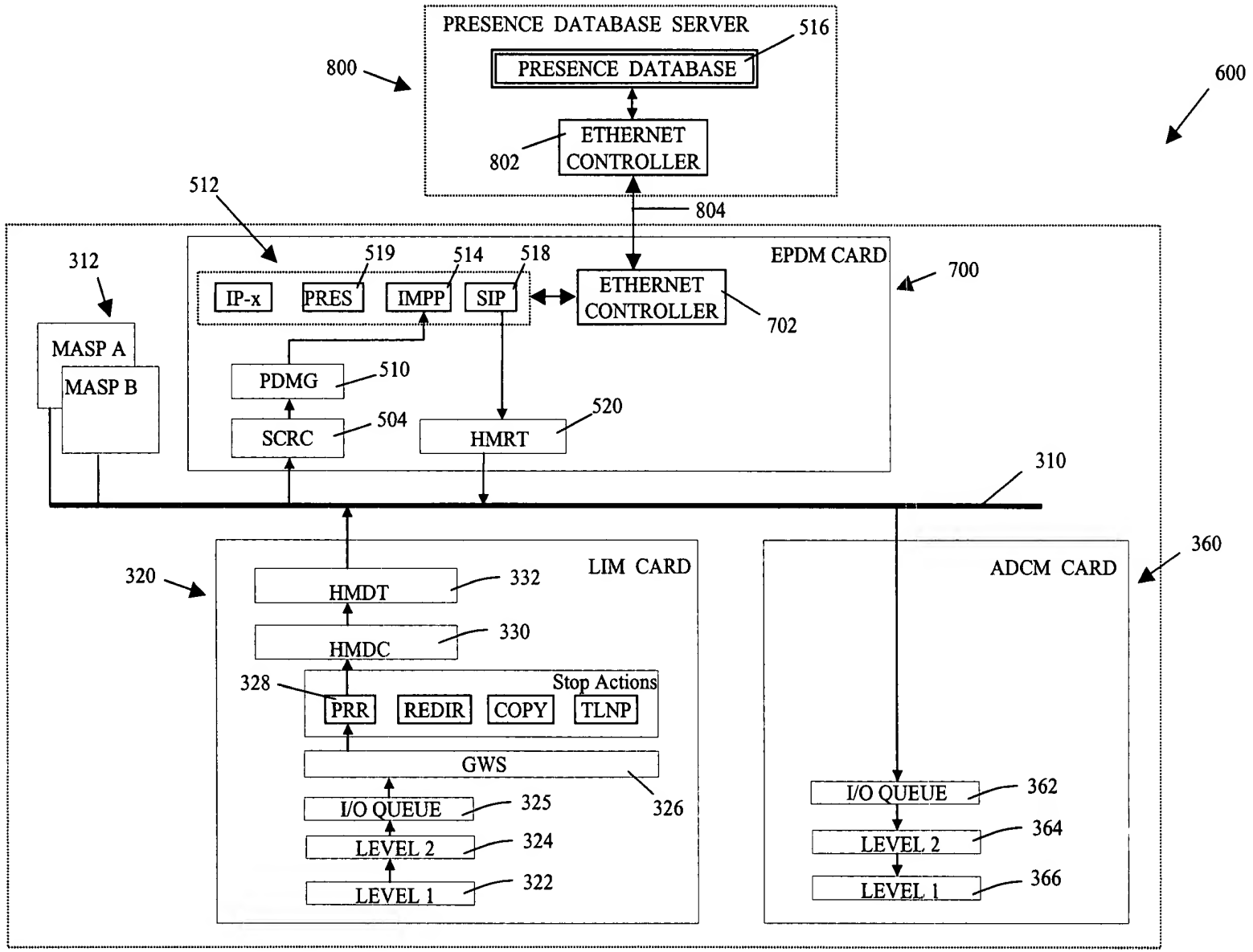
PRESENCE DATABASE SERVER
516
PRESENCE DATABASE
800
600
ETHERNET CONTROLLER
802
512
804
EPDM CARD
700
519
514
518
312
IP-x
PRES
IMPP
SIP
ETHERNET CONTROLLER
702
MASP A
MASP B
PDMG
510
SCRC
504
HMRT
520
310
320
LIM CARD
360
ADCM CARD
HMDT
332
HMDC
330
328
Stop Actions
PRR
REDIR
COPY
TLNP
GWS
326
I/O QUEUE
325
LEVEL 2
324
LEVEL 1
322
I/O QUEUE
362
LEVEL 2
364
LEVEL 1
366

Figure 13

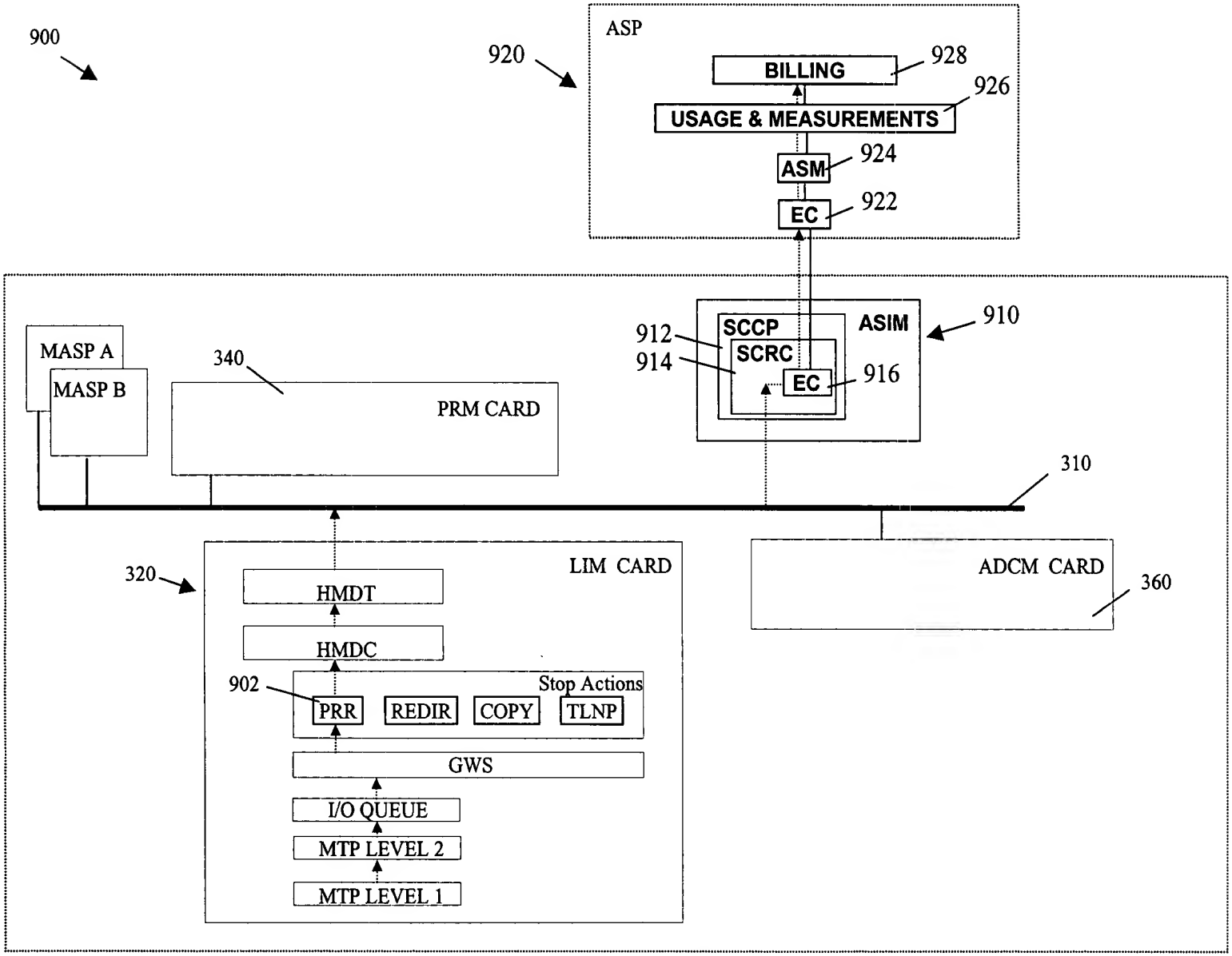
900
920
ASP
BILLING
928
926
USAGE & MEASUREMENTS
924
ASM
922
EC
910
ASIM
912
SCCP
914
SCRC
916
EC
MASP A
MASP B
340
PRM CARD
310
320
LIM CARD
HMDT
HMDC
902
Stop Actions
PRR
REDIR
COPY
TLNP
GWS
I/O QUEUE
MTP LEVEL 2
MTP LEVEL 1
ADCM CARD
360

Figure 14

008270 "E5272960

930

USAGE & MEASUREMENTS DATABASE

Keys		DATA FIELDS						
Transaction ID	Time	Service Provider	Service Recipient	Service Type	CgPA	CdPA	Originating PC/IP Add.	SSN/Port
1025	23:12.23	12	34	01	9194605500	jsmith@aol.com	2-1-1	50
1534	23:34.01	23	13	01	pjm@tk.com	9194605500	102.20.20.10	23
1632	23:36.59	12	15	03	tek.com	Retailer.com	103.30.30.10	24

Figure 15

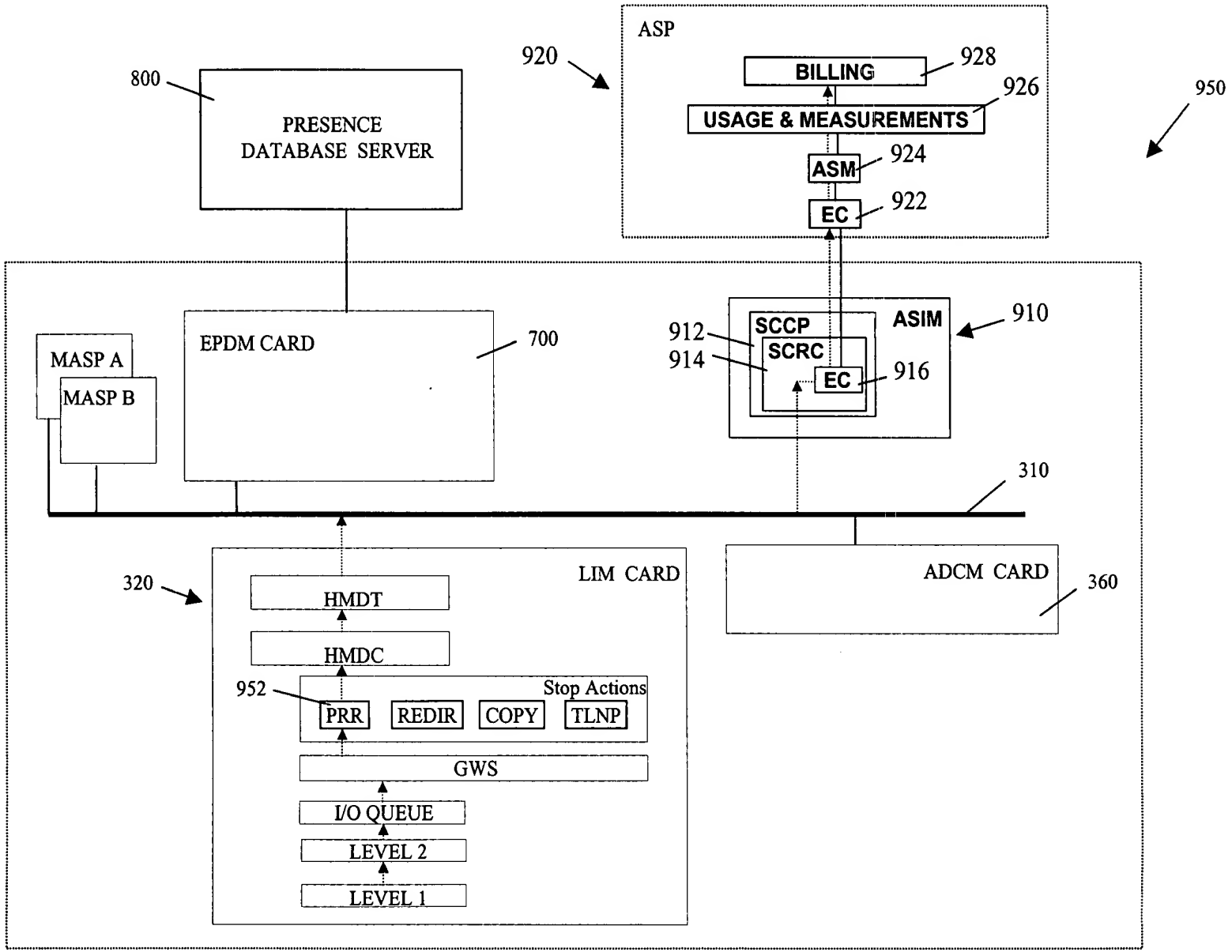
ASP
920
BILLING
928
USAGE & MEASUREMENTS
926
ASM
924
EC
922
950
800
PRESENCE
DATABASE SERVER
MASP A
MASP B
EPDM CARD
700
SCCP
SCRC
EC
ASIM
910
912
914
916
310
320
LIM CARD
HMDT
HMDC
952
Stop Actions
PRR
REDIR
COPY
TLNP
GWS
I/O QUEUE
LEVEL 2
LEVEL 1
ADCM CARD
360

Figure 16